GRUNDIG

FIELD RADIO S450DLX

AM/FM/Shortwave field radio with LCD backlight display and signal strength indicator

OWNER'S MANUAL

eton
EMPOWERED BY NATURE

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ETÓN
CORPORATION

DO YOU NEED HELP? Contact Us

If you need help, please contact us, Monday-Friday, 8:30 a.m.-4:00 p.m., North American Pacific Time. 1-800-872-2228 from the U.S; 1-800-637-1648 from Canada; 650-903-3866, worldwide; FAX: 650-903-3867; website, www.etoncorp.com; Etón Corporation , 1015 Corporation Way, Palo Alto, CA 94303, USA

WARNING

- Do not expose this appliance to rain or moisture.
- Do not submerge or expose for extended period to water.
- Protect from high humidity and rain.
- Only operate within specified temperature range (0 °C to 40 °C).
- Unplug immediately if liquid has been spilled or object have fallen into the apparatus.
- Clean only with a dry cloth. Do not use detergents or chemical solvents as this might damage the finish.
- Unplug and disconnect external antennas during lightning storms.
- Do not remove cover [or back].
- Refer servicing to qualified service personnel.

ENVIRONMENT

Disposal
According to the European Directive 2002/96/EC all electrical and electronic products must be collected separately by a local collection system.

Please act according to your local rules and do not dispose of your old products with your normal household waste.

MORE INFORMATION

This operation guide provides instructions for the most commonly used aspects of this product. Additional instructions and information can be found on our web site at www.etoncorp.com.

INSTALLING BATTERIES

The battery compartment is on the back of the radio. Remove it by pressing the two tabs and pulling up. Install only fresh, new alkaline D cells, all of the same brand and type. To prevent battery acid leakage, follow these instructions. Battery acid leakage is not covered by the radio's warranty. Never install or replace with batteries of different brands and types. Never intermix old batteries with new ones. When not using the radio for more than 30 days, remove the batteries.

USING BATTERIES

Use 6 D size alkaline batteries. Install them with correct polarity using the diagram inside the battery compartment on the back of the radio. Replace them if the battery strength indicator in the display shows one bar or the sound becomes distorted. The radio will turn off automatically if the batteries become too weak.

BATTERY LEVEL INDICATOR

The battery level indicator is in the upper left corner of the display. When batteries are full, " " will be displayed in the LCD; if " " flashes, it indicates that batteries are low and the radio will soon turn off automatically.

USING AC POWER

Plug AC adapter into the socket on the left side of the radio. Use only the AC adapter supplied. When the AC adapter is plugged in, the full power level will show in the upper left corner of the display, looking like a full battery. If you lose the AC adapter that came with the radio, use one with 9 Volt DC output, negative polarity, 500 milliampere and a plug with 5.5 millimeter outer diameter, 2.1 millimeter inner diameter.

POWERING FROM A CAR OR BOAT

Use a DC to DC converter. Output: 9 Volt DC, negative polarity, outer diameter 5.5 millimeter; inner diameter 2.1 millimeter.

TURNING ON AND OFF / SETTING AND DEACTIVATING THE SLEEP TIMER

Turn on the radio by pressing the red POWER & SLEEP button on the front top right corner of the radio. When it turns on you will briefly see a sleep timer symbol in the bottom portion of the display, this is the sleep time and the radio will play for this amount of minutes and then shut off. It can be deactivated by continuously pressing the power button until 'on' appears in the bottom of the display; with each press you will see the numbers going down from 90 to 60 to 45 to 30 to 15 to 10 to 5 to 1 minute and then to 'on'. When 'on' appears, stop pressing the button. The sleep timer is now disengaged and you don't have to change it unless you want a sleep time to appear.

To activate the sleep timer, turn the radio on and press the POWER & SLEEP button continuously until the desired sleep time appears. The radio will play for the specified length of time and automatically shut off. The sleep timer symbol will show in the display, " ".

TURNING THE S450DLX ON AND OFF

Turn on the radio by pressing the red POWER & SLEEP button on the front top right corner of the radio. When the unit is on, press the POWER & SLEEP again to turn the radio off.

SETTING AND DEACTIVATING THE SLEEP TIMER

To activate the sleep timer, turn the radio on and press the POWER & SLEEP button continuously until the desired sleep time appears. The sleep timer symbol will show in the display, "". With each press, the display will show the following on/sleep options: On, 90 to 60 to 45 to 30 to 15 to 10 to 5 to 1 minute and then to 'on'. The radio will play for the specified length of time and automatically shut off. When 'on' appears, the sleep timer will be disengaged.

VOLUME KNOB

Turn up the volume by turning the volume knob (upper left of four knobs at lower front center of radio) clockwise (right), down by turning the knob counterclockwise (left).

POWER FAILURE BACKUP FEATURE

If batteries are in the unit and it is powered via its AC adapter, it will automatically switch to battery use if there is an AC power failure.

USING THE LOCK BUTTON

To lock all of the keys and buttons press and hold the LOCK button "" (front top of the radio) until you see a symbol of a key appear in the top, middle of the display. Press the same button for 2 seconds to unlock it.

USING THE QUICK TUNE BUTTON

(Q.TUNE button, below the display)

To quickly tune across a band press the Q.TUNE button. It will save you time when going to a frequency on the other end of the band. This works on AM, FM and Shortwave.

THE TUNING KNOB CONTROLS: STOP, SLOW, FAST

Above the tuning knob are the STOP, SLOW and FAST buttons. Pressing STOP locks the tuning dial. Press it again to unlock it. Pressing SLOW or FAST gives you slow tuning or fast tuning. Use which ever one that you prefer.

ANTENNA DX/LOCAL SWITCH

(right side of radio)

If the station you're listening to is so strong that it sounds distorted, turn this switch to the LOCAL position. Otherwise, leave it on DX, which stands for maximum distance.

TUNING IN FM STATIONS

The FM frequency range is from 87 to 108 MHz.

- Fully extend the telescopic antenna and turn on the radio.
- Place the top BANDWIDTH control onto the MONO or STEREO position. Stereo is needed only when you're using headphones and STEREO appears above the top left of the frequency in the display. FM mono has better signal and noise ratio as well as anti-multiplex interference.
- Tune in the station with the TUNING knob or by pressing the UP/DOWN button or by pressing and holding the UP/DOWN button for one second to engage auto tuning.

BASS/TREBLE KNOBS

(lower left and right of four knobs at lower front center of radio)

Use these knobs to control the bass and treble response of the radio's speaker system.

USING THE AM RF GAIN KNOB

(upper right of four knobs at lower front center of radio)

When listening to AM (MW) broadcast stations, this control knob should be dialed to or near position 5. If you are listening to a weak station, increase the gain, when listening to extremely strong stations, decrease the gain. For listening to Shortwave stations, place this control to maximum gain and decrease the gain as necessary.

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TUNING IN MW STATIONS (AM); CHANGING THE TUNING STEPS

MW, or medium wave stations, known as AM stations in North America, range from 520 to 1710 KHz in North America and from 522 to 1620 KHz in other parts of the world. In North America they tune in 10 KHz steps and in other parts of the world they may tune in 9 KHz steps. The radio is set up for 10 KHz tuning by default, but to change the steps to 9 KHz, go into the battery compartment and move the switch from 10 KHz to 9 KHz and then press the reset button (in the front lower right of the radio) with a paper clip. The switch is located on the middle of the ridge between the upper set and lower set of batteries.

1. Turn on the radio.
2. Place the top BANDWIDTH switch into the W or N position (wide or narrow). Place bottom BANDWIDTH switch into the MW position.
3. Place AM/SW RF GAIN switch into the 5 position, higher if necessary.
4. Tune in the station with the TUNING knob or by pressing the UP/DOWN button or by pressing and holding the UP/DOWN button for one second to engage auto tuning.

Use WIDE if no interference is present. Use NARROW if interference is present.

TUNING IN SW (shortwave) STATIONS

1. Turn on radio.
2. Place the upper BANDWIDTH switch in the W or N position. Place the lower switch into SW1, SW2 or SW3.
3. Place AM/SW RF GAIN control into the 10 position; decrease if necessary.
4. SW appears in frequency range of 1711 to 29999 KHz.
5. Tune in the station with the TUNING knob or by pressing the UP/DOWN button or by pressing and holding the UP/DOWN button for one second to engage auto tuning.

TUNING TO SW FREQUENCY RANGES (BANDS)

Tune to these frequency ranges for best results. The radio can also tune between these ranges.

Meter Band (m)	Frequency	Best Time of Day
90m	3,200-3,400 kHz	
75m	3,900-4,000 kHz	
60m	4,750-5,050 kHz	night
49m	5,800-6,200 kHz	night
41m	7,100-7,500 kHz	night
31m	9,500-10,000 kHz	night
25m	11,650-12,200 kHz	
19m	15,100-15,800 kHz	day
16m	17,550-17,900 kHz	day
15m	18,900-19,020 kHz	
13m	21,450-21,850 kHz	day
11m	25,600-26,100 kHz	day

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OPTIMIZING SHORTWAVE RECEPTION

Shortwave enables listening to broadcasts over vast distances including other countries and continents. The following information will help you get the best results.

- During the day, frequencies above 13 MHz are usually best.
- At night, frequencies below 13 MHz are usually best.
- Around sunset and sunrise, the entire shortwave range may be good.
- Getting very close to a window and holding the radio improves shortwave reception.

To learn about shortwave we recommend the publication below, published yearly and available from major booksellers. Additionally, the Internet is a great resource for learning about shortwave. Type 'shortwave reception' into your favorite search engine.

WORLD RADIO TV HANDBOOK
Published in the USA by Watson-Guptill Publications,
770 Broadway, 7th Floor,
New York, NY 10003-9595.
www.watsonguptill.com

STORING AND RETRIEVING STATIONS INTO AND FROM PRESETS (MEMORIES)

Tune to the station that you want to store. Press and release the T.SET button and see 'Preset' with a number underneath it flash in the right side of the display. Press the UP or DOWN buttons over and over to find the 'Preset' number that you want to store it into. A quick press of the T.SET button will finalize the entry.

Press the PRESET button continuously to retrieve the stations that have been stored. Notice that the frequency in the display changes and the 'Preset' number shows on the right side of the display.

A station cannot be erased from memory. Simply store another station over it.

SETTING THE CLOCK

The S450DLX's clock works in either the 12 hour or 24 hour mode. To change the clock from one mode to another, turn the radio off, press and hold the UP button for 5 seconds.

To set the clock:

1. Turn radio off.
2. Press and hold the T.SET button until the hour starts flashing.
3. Turn the tuning knob in either direction or press the UP button to set the hour.
4. Quick press the DOWN button to make the minutes flash and turn the tuning knob to set the minutes
5. Quick press the T.SET button to finalize the entry.

Do the above steps quickly or the time set mode will exit. If it exits, simply start over.

SETTING THE ALARM CLOCK

There are two alarm clocks, Timer A and Timer B.

1. Turn the radio off.
2. Press and hold the TIMER A or TIMER B button until the hour flashes.
3. Turn the tuning knob in either direction or press the UP button to set the hour.
4. Quick press the DOWN button to make the minutes flash and turn the tuning knob to set the minutes.
5. Quick press whichever button you are using, TIMER A or TIMER B, to finalize entry.

ACTIVATING AND DEACTIVATING THE ALARM CLOCK

Press and release the TIMER A or TIMER B button. 'Timer A' or 'Timer B' flashes in the display. While it flashes, press ALARM over and over. A bell "(🔔)," speaker 🔊 or nothing appears in the display next to 'Timer A' or 'Timer B'. Select the bell icon to activate the alarm and set the alarm to go off with a beeping sound. Select the speaker icon if you wish to wake up to the last radio station tuned to. If nothing is selected the alarm will be deactivated. Set the volume to a level you want to hear.

USING THE SNOOZE FEATURE

(top right of radio)

To delay the alarm, the snooze feature can be activated by pressing the SNOOZE button when the alarm turns on. Once pressed, the alarm will activate again in 5 minutes. This can be repeated up to 4 times.

USING THE LINE IN/OUT SOCKETS

These sockets are on the right side of the S450DLX, an 1/8 inch stereo type (3.5 mm). An external audio device (such as an MP3 player) can be played by connecting an AUX line from the device into the Line-In socket. The Line-Out socket can be used to feed audio from the S450DLX to amplified external speakers.

USING THE EARPHONE JACK

The earphone jack can be used with stereo headphones using an 1/8 inch (3.5 millimeter) plug. FM sound is in stereo if the signal is sent in stereo and the ST position is selected with the BANDWIDTH switch.

EXTERNAL ANTENNAS

FM/SW EXT. ANT. – this socket, on the back of the radio is primarily for antennas designed to be fed with 50 or 75 ohm coaxial cable, such as dipoles or comparable antennas. It can also be used for long wire antennas. Use F plugs for feeding this socket.

ANT. SENS SWITCH: EXT or INT

(right side of radio)

Use this switch to enable the use of FM or SW internal or external antennas.

MW EXT. ANT. – This is a 500 ohm impedance socket, for use with long wire antennas.

USING THE GRUNDIG AN200 ANTENNA FOR IMPROVED AM(MW) PERFORMANCE

(not included)

The AN200 AM broadcast band (MW) loop antenna or any similar model does not need to be plugged in, simply set it next to the radio and tune it to the same frequency that the radio is tuned to. Swivel the radio and the antenna to achieve maximum performance. This antenna can be purchased by contacting Eton or one of our distributors. Call us for details.

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USING THE AM IF OUT SOCKET

(back of radio)

Use this F socket to access an amplitude modulated intermediate frequency output for use in receiving DRM signals. It can also be used for other types of radio frequency experimentation. We do not provide support for this feature. To find out more about it, enter 'DRM digital radio mondial' or 'AM intermediate frequency output for DRM' or 'AM intermediate frequency output' on an internet search site or look up these terms in a radio electronics book or in an encyclopedia. to access an amplitude modulated intermediate frequency output for use in receiving DRM signals. It can also be used for other types of radio frequency experimentation. We do not provide support for this feature. To find out more about it, enter 'DRM digital radio mondial' or 'AM intermediate frequency output for DRM' or 'AM intermediate frequency output' on an Internet search site or look up these terms in a radio electronics book or in an encyclopedia.

LIGHT BUTTON

(right top of radio)

Press this button to light the display for a few seconds. When using the AC adapter pressing it for 3 seconds will permanently light the display.

KEY LIGHT SWITCH

(right side of radio)

Flip this switch to ON to make the keys light when they are pressed. Flip it to OFF to turn off this feature.

TO RESET THE S450DLX

If the radio malfunctions or doesn't work properly, insert a paper clip into the hole on the front lower right side. Make sure the paper clip is inserted until the display reappears.

WARRANTY REGISTRATION

The radio is warranted for one-year. To ensure full warranty coverage or product updates, registration of your product should be completed as soon as possible after purchase or receipt. You may use one of the following options to register your product:

1. By visiting our website at **www.etoncorp.com**.
2. Mail in enclosed warranty card.
3. Mail your registration card or information to the following address; Include your name, full mailing address, phone number, model purchased, date purchased, retail vendor name and product serial number (typically located in or near the battery compartment):

   Etón Corporation
   1015 Corporation Way
   Palo Alto, CA 94303

LIMITED WARRANTY

Retain the warranty information from your warranty card with your proof of purchase or the Limited Warranty information can also be viewed at **www.etoncorp.com**.

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SERVICE FOR YOUR PRODUCT

To obtain service for your product, we recommend first contacting an Etón service representative at 800-872-2228 US, 800-637-1648 Canada or (650) 903-3866 for problem determination and trouble-shooting. If further service is required, the technical staff will instruct how to proceed based on whether the radio is still under warranty or needs non-warranty service.

WARRANTY – If your product is still in warranty and the Etón service representative determines that warranty service is needed, a return authorization will be issued and instructions for shipment to an authorized warranty repair facility. Do not ship your radio back without obtaining the return authorization number.

NON-WARRANTY – If your product is no longer under warranty and requires service our technical staff will refer you to the nearest repair facility that will be able to best handle the repair.

For service outside of North America, please refer to the distributor information included at time of purchase/receipt.

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1015 Corporation Way
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Standard of Quality

Limited Warranty and Product Registration

USA

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1015 Corporation Way
Palo Alto, CA 94303

www.etoncorp.com

Canada

Etón Electronics Canada LTD
Toronto Office
1 Yonge Street, Suite 1801
Toronto, Ontario M5E 1W7

www.etoncorp.com

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LIMITED WARRANTY

Etón Corporation (Etón) offers a limited warranty to the original customer against manufacturing defects in material and workmanship on this product. This warranty is valid only for the original purchaser and is not transferable.

TWO (2) YEARS PARTS AND LABOR - Europe
ONE (1) YEAR PARTS AND LABOR - North America

This limited warranty begins on the original date of purchase, and is valid only on products purchased through an authorized Etón retailer. Warranty repairs must be performed by Etón or an authorized service center. To receive warranty service, the original dated bill of sale, or a copy, must be presented upon request as proof of purchase. Installation, removal or reinstallation of the product is not included under this warranty. Shipping to Etón or the authorized service center is the responsibility of the purchaser. For products purchased in Europe, please return to your dealer or the distributor of your country, which is listed on a sheet included in the packaging.

Etón will repair or replace this product, at our option and at no charge, with new or reconditioned parts if this product is found to be defective during the limited warranty period. To be eligible for warranty coverage, the product must be returned with shipping charges prepaid no later than 15 days after the expiration of the warranty period to Etón or the designated service center.

Prior to returning any product for warranty service, the purchaser must contact Etón or the designated service center for troubleshooting and service procedure instructions. Damaged parts or products become the property of Etón. Parts and products replaced by Etón assume the remaining original warranty, or ninety (90) days, whichever is longer.

This limited warranty covers manufacturing defects in material and workmanship encountered in normal, noncommercial use of this product and shall not apply to the following, including, but not limited to: damage that occurs due to applications and uses for which the product was not intended; failures or problems that are caused by products or equipment not supplied by Etón; accidents, misuse, abuse, neglect, misapplication, fire, water, lightning, or other acts of nature; incorrect line voltage, fluctuations, or surges; damage caused by improper or faulty installation; damage caused by acid leakage from improperly installed or defective batteries; product alteration or modification; or use of unauthorized parts, supplies, accessories, or equipment that damage this product or result in service problems.

SERVICE INFORMATION

To obtain service for your Etón product, first contact an Etón service representative at 1-800-872-2228 US, 1-800-637-1648 Canada or your respective country distributor in Europe (see enclosed list) for troubleshooting. Many common questions and problems can be resolved over the phone.

WARRANTY REGISTRATION

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1. By visiting our website at **http://www.etoncorp.com.**
2. Mail in enclosed warranty card.
3. Mail your registration card or information to following address; include your name, full mailing address, phone number, email address, model purchased, date purchased, retail vendor name:

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SERVICE FOR YOUR PRODUCT

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*Denotes Required Field

Etón Product Registration

Go to: **www.etoncorp.com/productregistration**, or mail this form today.

Serial number*:
(located in the back of the unit)

Date of purchase*:

Dealers name*:

City*:

Country/Territory*:

Name*: First Name | Last Name

Address*:

City*:

State/Provice*:

Postal Code/ZIP Code*:

Country/Territory*:

Telephone Number*: Day Phone | Evening Phone

Email*:

1. Your annual income?

- ○ Under $14,999
- ○ $15,000 to $30,000
- ○ $30,001 to $50,000
- ○ $50,001 to $75,000
- ○ $75,001 to $150,000
- ○ Over $150,001

2. Your age?

- ○ Under 16
- ○ 16-20
- ○ 21-25
- ○ 26-30
- ○ 31-35
- ○ 36-40
- ○ 41-45
- ○ 46-50
- ○ 51-55
- ○ 56-60
- ○ 61 and over

3. What are your listening interests? (Check all that apply)

- ○ Satellite Radio
- ○ Local AM/FM
- ○ Shortwave/International Broadcast

4. Did you consider another unit before choosing this product?

- ○ Yes (Please Specify Model): _____
- ○ No

5. What is your occupation? _____

6. How did you hear about Etón?

- ○ Newspaper ad
- ○ Radio ad
- ○ Through a retailer
- ○ Article
- ○ Web Search
- ○ Other _____

○ **Yes!** I would like Etón to send me information on products including special offers, new product launches, and product updates/information:

○ Email ○ Mail

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